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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,056	11/17/2003	Kui Wong Yeung	007198-550	1160

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EXAMINER

FORD, JOHN K

ART UNIT PAPER NUMBER

3753

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/713,056

Applicant(s)

YEUNG, KUI WONG

Examiner

John K. Ford

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/30/04
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-6 is/are allowed. (if T.D. filed)
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to (if T.D. filed)
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/960387.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Applicant's response has been studied carefully.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In both claims 7 and 14, there is no disclosure of the manner in which these "pressure imbalances" are monitored and additional suction power is applied to the additional air-moving device to compensate for the clogging of the air filter. In paragraph [0047] of Pub US2004/0104008 (note Pub US2004/0104008 has been referenced by applicant in his response in lieu of the corresponding disclosure in the current specification) there isn't even a disclosure that this is done using pressure sensors, just some "sensors" monitoring the "imbalance". Arguably these sensors could be flow sensors or some other type of sensor that the Examiner may not be aware of.

Claims 7-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As stated immediately above, there is no original disclosure to support that pressure sensors control the additional air-moving device.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-6 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 6,684,939. Although the conflicting claims are not identical, they are not patentably distinct from each other because they simply claim the same invention in terms semantically different but generally of the broader scope than the allowed claims in the patent.

Claims 7-17 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 6,684,939 in view of JP 2-63519.

To have added the flow rate controller to the claimed subject matter of claims 1-13 of USP 6,684,939 to vary the flow rate of the additional air-moving device in the manner taught by JP 2-63519 would have been obvious to one of ordinary skill in the art.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kucharczyk (Figure 7) and JP 8-5091 and JP 2-63519.

Figure 7 of Kucharczyk shows a filter 20 and a fan 30a and a heat exchanger 14 in series with respect to outdoor airflow drawn through conduit 8. No booster fan in series with fan 30a, between it and the filter 20, is shown.

JP 8-5091 teaches that two centrifugal fans 5 and 6 between an air filter 4 and a heat exchanger 7 can advantageously reduce noise relative to a single fan of corresponding capacity (the same reason applicant uses two centrifugal fans in series). To have added a centrifugal booster fan (such as shown y JP'091 at 5A) to Kucharczyk Figure 7, between centrifugal fan 30a and filter 20 to lower noise levels particularly when using high pressure drop filters (e.g. efficient HEPA - type filters) would have been obvious to one of ordinary skill in the art.

In the prosecution of the parent application (SN 09/960,387) applicant addressed remarks to this combination of references. Those remarks are addressed below:

Applicant remarks regarding the combined teachings of Kucharczyk (Figure 7) and JP 8-5091 are not convincing. On pages 13-15 of Paper NO. 5 of SN 09/960,387, applicant argues that heat exchanger 7 of JP'091 is not an air-to-air cross flow type and therefore of doubtful teaching value. The Examiner does not believe one of ordinary skill would be this myopic with regard to the teaching of the reference, namely that the two serially disposed centrifugal fans are quieter than enlarging a single centrifugal fan to compensate for the static pressure loss caused by an air filter. This is exactly the same problem that applicants discuss at page 10, lines 1-5 of the specification.

It is precisely for this reason that the Examiner believes one of ordinary skill apprised of the teaching of Kucharczyk (Figure 7) JP 8-5091 would have found it obvious to substitute two centrifugal fans in series in the fresh air stream rather than trying to oversize the fresh air centrifugal fan of Kucharczyk to compensate for the pressure drop across a filter, particularly when using a restrictive one such as a HEPA filter claimed in original claim 5 of SN 09/960,387. The Examiner does not believe such a clear teaching is "tainted with hindsight influence", as suggested by counsel.

Centrifugal fans inherently have discharges, which are perpendicular to their inlets. See Chapter 3 from the 1983 ASHRAE Equipment volume, a handbook publication of this particular art area (heating, ventilating and air conditioning), not relied upon in the rejection except to illustrate common knowledge in this art. Applicants have conceded the point by failure to argue it seasonably in response to the previous rejection. JP '519 teaches controlling serially arranged

Art Unit: 3753

blowers to compensate for filter clogging, an obvious control system to have added to Kucharczyk / JP '091.

Regarding claims 2, 15 and 16, the scroll portion of the first air-moving device and additional centrifugal blower used in JP 8-5091 teaches deflecting the flow orthogonally. The radial flow from the blower wheel undergoes a change of direction as it passes through the scroll portion.

Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, after a terminal disclaimer is filed.

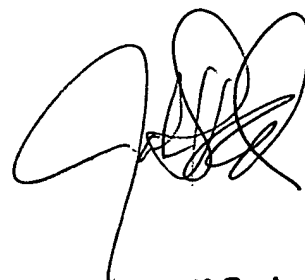
Claims 4-6 would be allowable after a terminal disclaimer is filed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3753

Any inquiry concerning this communication should be directed to John K. Ford at telephone number 571-272-4911.

A handwritten signature in black ink, consisting of a large, stylized 'J' followed by a series of loops and a long horizontal stroke.

**John K. Ford**  
**Primary Examiner**

Ford/am

March 15, 2005